DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Yes

No

N/A

Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William **Report No:** WIR-027257

Address: 333 Burma Road **Date Inspected:** 01-Mar-2012

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure Prime Contractor: American Bridge/Fluor Enterprises, a JV **OSM Departure Time:** 1730 Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job Site

CWI Name: Salvador Merino/FrSteve Jensen CWI Present: Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A N/A Yes **Qualified Welders:** Yes No **Verified Joint Fit-up:** No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:**

Delayed / Cancelled:

34-0006 **Bridge No: Component: OBG** Components

Summary of Items Observed:

On this date, Quality Assurance Inspector (QAI) Kenneth Riley was present at the San Francisco Oakland bay Bridge job site at Yerba Buena Island to observe erection and welding activities for the San Francisco Oakland Bay Bridge (SFOBB) project. This Quality Assurance Inspector (QAI) observed the following work performed by American Bridge/Fluor Enterprises (AB/F) personnel at the locations noted below:

Plate Stiffeners

This QAI observed that the contractor had fit up plate stiffeners at 12W/13W @ LS 3-5 and 12W/13W @ LS 4-6. The material being fit is Gr 485 plate stiffeners (ID X3847D-H & J and X4879D-H & J) the dimensions of the plate stiffeners are 18mm x 125 & 130mm x 1500mm Gr 485W. This QAI observed the QC inspector verify the fit up and noted that there is an offset (Misalignment) of the Plate Stiffener to longitudinal stiffeners. The QC inspector mapped the misalignment locations and it was turned in to the contractors engineer to be addressed and sent to Caltrans as a Request For Information (RFI).

This QAI observed welder's Rich Garcia and Jeremy Dolman was using the Shielded Metal Arc Welding (SMAW) process, with electrode E9018 for the Partial Joint Penetration weld in the overhead (4G) position at 12W/13W @ LS 4-6 and 12W/13W @ LS 4-6, for the plate stiffeners. The Welding Procedure Specification (WPS) used was ABF-WPS-D15-1162-4 with a 3.2mm electrodes for these locations with welding amps measured at 126 (Dolman) and 123 (Garcia). The pre-heat for these locations were measured at 100 degrees C (200 degrees F) using thermo-couplers which were verified using a tempstik and infrared gun by the QC. The welder was also observed by this QAI as using a chipping hammer, power grinder and power wire wheel for the interpass cleaning. The QC inspector for this location was Salvador Merino and was observed verifying and documenting the welding

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parameters for this location, along with overseeing the welding operations. At the time of the observations no issues were noted by the QAI.

Later in the shift this QAI continued his random observation of the items noted above and observed that the QC inspector had performed Magnetic Particle Testing (MT) of the root pass for 12W/13W @ LS5 and 13W/14W @ LS5&6 the results of the MT was acceptable which was observed by this QAI inspector. The welders, Rich Garcia and Jeremy Dolman continued with the Shielded Metal Arc Welding (SMAW) process, with electrode E9018 for the Partial Joint Penetration weld in the overhead (4G) position. The Welding Procedure Specification (WPS) used was ABF-WPS-D15-1162-4 with a 3.2mm electrodes for these locations with welding amps measured at 125 (Dolman) and 124 (Garcia). The pre-heat for these locations were measured at 100 degrees C (200 degrees F) using thermo-couplers which were verified using a tempstik and infrared gun by the QC. The welder was also observed by this QAI as using a chipping hammer, power grinder and power wire wheel for the interpass cleaning. The QC inspector for this location was Salvador Merino and Steve Jensen and was observed verifying and documenting the welding parameters for this location, along with overseeing the welding operations. At the time of the observations no issues were noted by the QAI.

Lifting Lug and Vent Holes

This QAI inspector has noted that the contractor did not perform welding at this location today due to the inclement weather in the area.

Unless noted otherwise, all work observed on this date appeared to be in general compliance with the contract documents at the time of observations.





Summary of Conversations:

Basic conservation, fundamental to completion of the tasks at hand, occurred between this QAI and ABF QC personnel.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

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Inspected By: Riley,Ken Quality Assurance Inspector **Reviewed By:** Levell,Bill QA Reviewer